

**State of Tennessee**  
**Sourcing Event # 32110-11233**  
**Specifications for Audiovisual and Video Conference Room**  
**Equipment & Maintenance**

## **1.0 Scope / Purpose**

- 1.1 The purpose of this event is to establish a statewide contract (“Contract”) for the engineering, procurement, delivery, installation, and related services of Audiovisual (“AV”) and Videoconferencing (“VC”) systems that meet the needs of all State Agencies. This Contract will also establish priority level support for telephone technical support and on-site maintenance and related services for the existing and future State-owned audiovisual, videoconferencing, streaming video and related equipment and systems. This Contract will be used by the Department of Finance and Administration, Strategic Technology Services (“STS”), Unified Communications and Collaboration (“UCC”) team for all consolidated executive branch agencies and will be managed by the Central Procurement Office (“CPO”). Definitions shall be as set forth in these specifications and the Contract.
- 1.2 For executive branch Agencies, this Contract will be restricted to STS, STS-UCC Team to be managed by STS and CPO.
- 1.3 The intent is to have a Contract available for audiovisual and videoconferencing components and systems including the following:
  - Purchase of audiovisual, videoconferencing and streaming hardware, software, and services
  - Installation of all related hardware and software
  - Programming/commissioning of all related and integrated hardware and software
  - End user training and system documentation for all installed systems
  - Moves, Adds, Changes and upgrades for all existing equipment and systems
  - Telephone Technical Support, On-site Technical Support
- 1.4 The Contractor shall provide all service and deliverables as required, described, and detailed herein and shall meet all service and delivery timelines as specified by this Contract. References made to listed Videoconferencing and Audiovisual systems equipment throughout this document shall be construed to mean stated versions or higher as available.
- 1.5 STS - UCC currently has in operation the videoconferencing and audiovisual, streaming video systems equipment listed in Attachment A. Additional equipment will be added to this list as it is purchased. The majority of this equipment is found throughout the State in the metropolitan areas inside State government facilities. These systems could also be in remote locations such as county medical centers, correctional complexes and remote regional offices. The equipment and associated quantities in Attachment A may be more or less than what is included at the time of contract award. STS - UCC will provide an updated equipment list at contract award to determine the first year’s maintenance fees and will coordinate with the Contractor quarterly to update the list throughout the term of the contract.

## **2.0 Definitions**

**Agency.** The term “Agency” shall refer to each State board, commission, committee, department, officer, or any other unit of State government.

**Audiovisual Equipment.** Audiovisual Equipment is equipment that is used to display visual communication aids or to enhance or record audio or video for presentation or communication purposes.

**Audiovisual.** Audiovisual refers to the use of both sight and sound to enhance communication, typically in the form of slides or video and amplified or recorded speech or music.

**Bid Discount.** A Bid Discount is a competitive discount for a product or service offered during a Sourcing Event.

**Business Day (State of Tennessee).** Monday through Friday (7:00 am through 4:30 pm Central), except State holidays.

**Catalog Pricing.** Catalog Pricing refers to the price of an item in a catalog where the purchase price has volume or other discounts deducted and charges for specific services.

**Catalog.** A Catalog is a complete list of items available for purchase from the supplier within a contract. Often organized by product category.

**Devices.** The term “Devices” shall refer to audiovisual or information technology hardware such as monitors, cameras, tablets, projectors, etc.

**Evaluation Model.** An Evaluation Model is a document which allows suppliers to provide their pricing for services or products the State of Tennessee wishes to procure. This document is then analyzed to determine the lowest cost for said products and/or services.

**Guarantee of Workmanship.** A period of assurance and support from the vendor that a quality finished product has been delivered to the State. This period will run from the time of STS project sign-off to the start of maintenance billing on the first day of the following calendar month. During this period, the system shall be supported to the full terms of the maintenance contract including advance replacement of equipment and any necessary technical support.

**IT Service Management (“ITSM”).** The term “ITSM” shall refer to a strategic approach to design, deliver, manage and improve the way the State uses information technology. ITSM includes all the discrete activities and processes that support a service throughout its lifecycle, from service management to change management, problem and incident management, asset management, and knowledge management.

**Maintenance.** The physical work, technical support and/or equipment replacement that must be performed to preserve the functionality of the Audio-Visual systems supported under this contract.

**Moves, Adds, Changes, and Upgrades.** The phrase “Moves, Adds, Changes, and Upgrades” refers to cases in which the State of Tennessee must change the location of, add to, reconfigure or update an existing audiovisual or video conference room system.

**Nights or after normal business hours (State of Tennessee).** Monday through Thursday (4:31 pm through 6:59 am Central), except State holidays.

**On-Site Technical Support.** On-Site Technical Support is technical support provided by the supplier that is conducted, performed, or completed at the location in which the device is being used/housed.

**Priority Level Support.** Priority Level Support requires the Contractor to react to the State’s support request by immediately providing the appropriate resource(s).

**Service Calls.** Refers to a request for service from the State to the Contractor to engage their services to resolve a technical issue or equipment failure, possibly utilizing an ITSM platform.

**ServiceNow.** an ITSM (IT Service Management) system used by the State to track trouble reporting and resolution of those troubles. The State may expand this system to support service ordering and tracking of Videoconferencing and Audiovisual systems equipment.

**Solicitation.** A Solicitation is the act of asking for or trying to obtain a good or service.

**Sourcing Event.** A Sourcing Event is an event held by the Central Procurement Office in which Suppliers are invited to bid on products or services the State of Tennessee wishes to purchase. May also at times be referred to as an ITB within this document.

**State.** The term “State” refers to the State of Tennessee, including its departments, agencies, and entities that fall under its purview.

**Statewide Contract.** The term “Statewide Contract” refers to a contract for goods or services established by the Central Procurement Office that all executive branch State agencies must utilize and that may be used by local governments, higher education and not-for-profit entities.

**Strategic Technology Solutions “STS” Business Hours.** The term “STS Business Hours” shall refer to STS’ normal business hours of 7:00AM to 4:30 PM Central Standard Time, and excludes State holidays.

**Strategic Technology Solutions “STS”.** The term "STS" shall refer to a division within the State of Tennessee’s Department of Finance and Administration. STS provides technical direction, services, and infrastructure to the State agencies.

**Telephone Technical Support.** Telephone Technical Support is technical support provided by the supplier via phone call.

**Time.** All references made to time in this solicitation refer to local time within the time zone of the Agency destination (Central Standard Time/Daylight Savings Time or Eastern Standard Time/Daylight Savings Time).

**Videoconferencing Equipment.** Videoconferencing Equipment is communication equipment used for the conduct a videoconference.

**Videoconferencing.** Videoconferencing means to conduct a conference between two or more participants at different sites by using telephone or computer networks to transmit and receive audio and video data.

**Weekends.** 4:31 pm Friday - 6:59 am Central Monday

### **3.0 Contract Definitions and Requirements**

- 3.1 The Contractor is responsible for the technical and functional validity of all purchased systems. The Contractor must insure that all technical requirements including all hardware, firmware, software, installation, integration, commissioning, programming, training, and system documentation are complete, correct and match the requested scope of work for the specific project as well as all of the STS UCC documented equipment and system installation standards.
- 3.2 The Contractor will be responsible for successful interoperability of all hardware and software provided under this Contract.
- 3.3 Hardware, software and components provided shall be commercial, off-the-shelf, and shall be compatible with existing ITU-T standards, and with existing ANSI standards that insure proper operation within the North American hierarchy.

- 3.4 **State Ownership of Work Products:** The State shall have all ownership right, title, and interest, in all work products, including customized application source code, created, designed, developed, installed or delivered to the State under this Contract. The State shall have exclusive, and unlimited rights to use, all said work products. The Contractor shall furnish such information and data upon request of the state, in accordance with the Contract and applicable State law. Other than as set forth in this Contract, all work products provided under this Contract shall be considered works for hire. Contractor shall transfer all intellectual property rights contained in work products to the State.

### **3.5 Contractor Contractor Proprietary Products:**

- 3.5.1 The Contractor shall retain ownership right, title, and interest in the portions of videoconferencing and audiovisual systems and software that were not developed using State moneys or resources, and that were complete and the property of the Contractor as of the Effective Date of the Contract (known as "Contractor Proprietary Products").
- 3.5.2 The following provisions apply:
- 3.5.3 The Contractor hereby grants the State a perpetual, royalty-free, paid-up, irrevocable, unlimited, and non-exclusive right to use the Contractor Proprietary Products for the State's business purposes. The Contractor warrants that Contractor is duly authorized to grant this right.
- 3.5.4 The State shall take all reasonable steps to preserve the confidential and proprietary nature of the Contractor Proprietary Products. The State shall make reasonable efforts not to disclose or disseminate Contractor's proprietary information to any third party that is not an agent of the State. All obligations regarding propriety or confidential information are subject to the provisions of the Tennessee Public Records.
- 3.6 **Acquired Knowledge and Skills:** Nothing in the Contract shall prohibit the Contractor's use for its own purposes of the general knowledge, skills, experience, ideas, concepts, know-how, and techniques obtained and used during the course of providing the services requested under this Contract.
- 3.7 **Development of Similar Materials:** Nothing in the Contract shall prohibit the Contractor from developing for themselves, or for others, materials which are similar to and/or competitive with those produced under this Contract.
- 3.8 The State shall not be responsible for the Contractor's or the Contractor's subContractors expenses for travel, meals or lodging related to any services provided under this Contract. The State shall not be charged or invoiced for these expenses under any Contract line item or catalog line item under this Contract.
- 3.9 **Time** – All references made to time in this document refer to local time within the time zone of the agency destination (Central Standard Time/Daylight Savings Time or Eastern Standard Time/Daylight Savings Time).
- 3.10 **Business Day (State of Tennessee)** - Monday through Friday (7:00 am through 4:30 pm Central), except State holidays.
- 3.11 **Nights or after normal business hours (State of Tennessee)** – Monday through Thursday (4:31 pm through 6:59 am Central), except State holidays.
- 3.12 **Weekends:** 4:31 pm Friday - 6:59 am Central Monday

- 3.13 ServiceNow – an ITSM (IT Service Management) system used by the State to track trouble reporting and resolution of those troubles. The State may expand this system to support service ordering and tracking of Videoconferencing and Audiovisual systems equipment.
- 3.14 A thorough review of the entire specification document is critical in order to obtain an in-depth understanding of the requirements, as well as to fully understand the goals and objectives of the State of Tennessee. It is important that Contractor completely understand the State's requirements prior to submitting a bid.
- 3.15 State of Tennessee requires that Contractors be financially and contractually able to obligate themselves to the requirements of products, delivery, and services.
- 3.16 The State currently uses a purchase order arrangement to order Audiovisual and Videoconferencing systems and equipment. During the Term of this Contract the State may convert to an electronic based system for ordering and tracking. The Contractor will utilize this system for order placement and tracking if and when it becomes available.
- 3.17 The State requires the Contractor to provide and install any and all wiring needed for system installation that is not included in the standard premise wiring facilities contract. Electrical wiring in excess of 70 volts will be provided by either the State or its electrical Contractor. The State will provide line power and network connectivity for all installed equipment provided under this contract.
- 3.18 According to the requirements of T.C.A. § 62-6-119, the Contractor must be properly licensed by the Tennessee Board for Licensing Contractors. In order for a bid to be considered, evidence of the Contractor's license must be furnished within the bid and include the name, license number, expiration date and classification applying to the bid for the prime Contractor (the Contractor) and any subContractor. Acceptable Contractor license classifications applying to the bid would include:
- Electrical (CE); or
  - Low voltage electrical such as, E-D, F or G; or
  - Specialty, such as S-Audio Visual
- 3.19 Requirement for "New" Equipment
- 3.19.1 The Contractor shall provide only new and the latest (hardware, software, and other related parts and components) models for the initial purchase of original equipment provided by the manufacturer in the marketplace, unless otherwise stated. All subsystem components, wire, cable, and accessory hardware shall be standard products of an established and reputable manufacturer.
- 3.19.2 Used, remanufactured, rebuilt, reconditioned, or prototype hardware or software will not be accepted as new.
- 3.19.3 In all cases, replacement equipment must be compatible with the existing systems hardware and software and must provide functionality equal to or greater than the equipment being replaced. This compatibility must be verified by the STS-UCC Team. If new replacement equipment and/or parts are not available, due to discontinuance or product end of life, refurbished equipment or parts may be allowed to effect a service requirement with STS-UCC Team approval.
- 3.19.4 The Contractor shall notify, in writing, CPO and STS, STS-UCC Team, in the event equipment and/or parts are no longer available as new and removed from the market except as refurbished or reconditioned. The official notification shall contain, at a minimum, notice from the manufacturer or the refurbishing company that the product is no longer available and the date of discontinuance. It will be the State's option to decide if this refurbished equipment will be allowed. The Contractor will not be held responsible for delivery of items that have been

properly verified as being no longer available. After the proper documentation has been received and accepted by the Central Procurement Office and STS-UCC Team the qualified items shall be removed/canceled as a requirement from the Contract.

3.19.5 Return Merchandise Authorization (“RMA”) equipment shall be new with the exception of after project sign-off and conditions listed in 3.19.3 replacement can be with factory reconditioned, fully warranted parts

3.19.6 The Contractor shall supply the latest generation audiovisual and videoconferencing equipment and technology to STS for review and addition to the equipment catalog.

3.19.7 The Contractor shall supply all hardware, software, labor, system design, telephone technical support, on-site technical support, technical training, user training, operational assistance, and materials as specifically outlined within this document for the duration of the Contract.

### 3.20 Delivery Requirements

3.20.1 Hardware and software shall be delivered to the destination of the designated agency’s place of installation, in full. No partial shipments will be accepted. Each shipment must include a primary and secondary point of contact name and phone number for notification of delivery and access to the Agency facility. The State may require specific time frames for the delivery and installation of the systems being purchased.

3.20.2 Orders requiring setup and installation of systems shall be F.O.B. destination (point of the installation) and shall not exceed thirty (30) calendar days from receipt of the purchase order, unless an extension has been previously approved by STS-UCC Team. No partial shipments will be accepted at State Agency points of installation. This schedule shall include shipping, delivery, staging, and testing to make the system fully operational in the State environment. STS-UCC Team Group must be notified within fifteen (15) calendar days of the Contractor receiving the purchase order, when manufacturer back orders are apparent. Back order items must ship to the State within sixty (60) calendar days of receipt of the purchase order, or an equivalent item be substituted with approval of STS-UCC Team and CPO in accordance with the terms and conditions of the bid.

3.20.3 The Contractor will be required to deliver replacement parts on-site the next business day. This applies to all parts under maintenance to ensure complete, continuous and timely service of Audiovisual and Videoconferencing systems. Exceptions will require STS-UCC TEAM approval. The cut-off for next business day parts delivery requirement is 2:00pm Central Time. Service requests made after this time will be required the following business day.

3.20.4 Specific additional delivery requirements for hardware, software, replacement hardware, replacement software, replacement repair parts or services are described in section 4.0.

3.20.5 Equipment delivered under this Contract must be accompanied by all necessary and/or usual industry standard software, hardware, cabling, mounting brackets, and documentation and manuals for such products, to include, patches, updates, and/or service packs as required, to integrate component parts into a totally functional network system, without additional cost to the State.

### 3.21 Catalog Requirements

3.21.1 Neither manufacturers’ nor Contractors’ terms and conditions are to be included in the catalog prepared for the State and from all supplements after award.

- 3.21.2 The Contractor will provide, within two (2) weeks after Contract Effective Date, a complete catalog of the products that meet the requirements outlined in these specifications. This catalog will be a combined catalog of all bid requirement items from all represented manufacturers' published catalogs and contain only the manufacturer's list price ("MSRP") to which the Contractor's bid percentages will be applied. No additional costs, such as manufacturer required maintenance, will be added to the MSRP in the catalog. Any additional costs the Contractor intends to charge for an item must be calculated against the item's MSRP using the Contractor's bid percentage. The catalog will contain only the Videoconferencing and Audiovisual hardware, software, accessories, and related services, available from the manufacturers' published catalogs that are in compliance with the scope of this ITB. The catalog offerings must be provided for the duration of the Contract and renewals thereof and include the most up-to-date products and services.
- 3.21.3 An example of the current catalog named "Catalog Template Sample" is included as an attachment in this Invitation to Bid. In this example catalog, the manufacturer's suggested retail price, and discount percent or discount price have been removed. This catalog is provided for example purposes only to demonstrate the size and comprehensive nature of the required catalog.
- 3.21.4 The Contractor shall provide product update information on contract products and services as requested by the State.
- 3.21.5 The Contractor must notify the State in writing, of any product discontinuance within seven (7) days of the manufacturer's End of Life ("EOL") public notice and should perform due diligence if orders for such items are currently in the system, but not shipped, to notify the State sooner than seven (7) days. Additionally, the Contractor must, throughout the Term of the Contract, deliver to the State within seven (7) calendar days of release any information regarding EOL declarations, H.32x standards non-compliance, or software patches / vulnerabilities for the existing equipment covered under maintenance.
- 3.21.6 The catalog offerings must be provided for the duration of the Contract and must include, the categories listed below. Detailed specifications for these categories are listed below.
- 3.21.7 The Catalog is divided into categories by equipment type and manufacturer.
- 3.21.7.1 Categories 1-4: Videoconferencing hardware, software and accessories. These categories include, but are not limited to videoconferencing desktop, set-top and room system endpoints, hardware, software and peripherals.
  - 3.21.7.2 Categories 5-18: Audio and Video Processing, Switching, Transport and Control. These categories include audio DSP mixers, processors, Video switchers, sources, matrix mixers, interfaces, distribution, transport, amplifiers, speakers, cabling, remote control systems and interfaces.
  - 3.21.7.3 Categories 19-28: Display devices. These categories include installed projectors, electric screens, LCD/LED monitors, and interactive technology.
  - 3.21.7.4 Categories 29-32: Mounts, furniture, racks, and accessories. These categories include Mounts, mounting hardware, furniture, racks, rack equipment and accessories
  - 3.21.7.5 Category 33: Special Application Packages. This category includes application specific packages, special use-case solutions and vertical market bundles not applicable to the other

categories. Items in this category may include hardware software and accessories bundled in a single package.

- 3.21.7.6 Category 34: Streaming Video hardware, software and accessories. This category includes streaming video encoders and accessories, and streaming server software and support.
- 3.21.7.7 Category 35: Labor. This category includes installation labor, programming labor, and project management labor.
- 3.21.7.8 The State requires Contractors to provide software packages for audiovisual and videoconferencing equipment and/or network management in their catalogs, to include at minimum, current releases of Cisco TelePresence Management Suite, Crestron Fusion, Kramer VSM, Biamp SageVue or the latest replacement, upgrade or version.
- 3.21.7.9 Prices included in the awarded published catalog shall remain firm for one hundred eighty (180) days following the Contract Effective Date. After the initial one hundred eighty (180) days, the Contractor may update its entire catalog up to two (2) times per year during the course of the contract and renewals thereof. These catalog updates are used to change catalog item pricing and product numbers in accordance with the terms and conditions of the original bid document. However, an unlimited number of catalog supplements to the existing catalog may be submitted with approval from the STS-UCC Team and CPO. The supplement is to be used for adding new products and services not available at the time of award, but which fall within the scope of the original specifications. Additionally, while price changes are only made to the catalog up to two times a year, STS-UCC Team must be notified of MSRP decreases within fifteen (15) days of a change.
- 3.21.7.10 An updated Electronic catalog in Excel format must be provided to CPO, STS-UCC TEAM, and Department of Finance and Administration Billing Services as requested.
- 3.21.7.11 Catalog updates as described above are for the purpose of keeping technology current and remain within the scope of the original services bid and therefore do not require a Contract amendment.
- 3.21.7.12 All hardware and software additions shall be new, including hardware and software identified and requested within these specifications, as well as the latest models provided by the manufacturer in the marketplace. Remanufactured, rebuilt, reconditioned, demonstrator, used or prototype hardware and software will not be accepted.
- 3.21.7.13 The position of the State is to stay current with state-of-the-art capabilities and maintain the ability to offer its client base the latest technology. The Contractor must acknowledge any technology changes, provide a clear technical, and cost migration path to future standards-based developments, and software and hardware enhancements by the manufacturer and by the industry in general.
- 3.21.7.14 During the Contract Term and renewals thereof, if manufacturers' model numbers change, or hardware, software, components and/or replacement parts are discontinued, equal or better hardware and software substitutions must be supplied at the same or lesser price of the item replaced. The STS-UCC Team must approve the addition or substitution of hardware and/or software in the catalog prior to allowing the Contractor to offer the items to the State.



3.21.7.15 Upon acceptance by the State, any addition/insertion and/or substitute item will become a catalog item for this contract, subject to the provisions herein.

### 3.21.8 Pricing Requirements

3.21.8.1 All areas of the Sourcing Event that require pricing completion must be completed without the use of "n/a" or "n/c". The State cannot evaluate the meaning or value of these symbols.

3.21.8.2 Contract pricing will be a firm fixed percentage discount from the manufacturers' catalog quoted on the Evaluation Model, that specify a percentage be bid. The State will not be charged additional charges, fees, additional rates, etc. other than provided within this sourcing event. All charges invoiced shall be represented on a contract line item.

3.21.8.3 Contract line item pricing will be a firm fixed price quoted on the line items with a unit of issue labeled as hour (hr.).

3.21.8.4 The State will not pay the Contractor for travel time, meals, airfare, lodging or mileage (trip charges). In addition, the State will not pay the Contractor for the time spent in route to or from State location where the Contractor is performing authorized work. Charges billed by the Contractor against a Contract line such as "labor/hour" will be based on the actual amount of time the Contractor spent performing authorized work at a State location, and will be verifiable by a sign-off or PIC sheet that lists actual hours on site and is signed by a State employee.

3.21.8.5 The State will only pay the Contractor for requested hardware, software, and services in accordance with this Contract or as an item in the approved catalog and/or price list.

3.21.8.6 The State will not pay any additional or itemized shipping and handling costs associated with this contract. All shipping and handling costs associated with this Contract are to be included within the unit bid costs. This shall apply to shipping costs for all initial purchases, replacement hardware/software and replacement parts of failed hardware/software items, whether covered under warranty or not.

3.21.8.7 The State shall not be billed restocking fees for any standard off-the-shelf products returned to the Contractor.

#### 3.21.8.8 Catalog Pricing

3.21.8.8.1 Percentage: All Catalog Pricing will be determined by the actual Bid Discount submitted on the Evaluation Model.

## 4.0 The Current State Environment

4.1 The State of Tennessee, Department of Finance and Administration, STS-UCC Team currently has Videoconferencing and Audiovisual systems in operation. In order to maintain compatibility, the State requires the selected Contractor to provide hardware, software, replacement hardware, software, and related components approved by the State for replacement in this environment. Compatibility with the State's existing call control, session management and provisioning platforms, infrastructure devices and endpoints (codecs) is a mandatory requirement. This entire environment is based on the ITU-T H.323 and SIP (RFC3261) standards.

- 4.2 The Contractor must support compatible products which are fully Ethernet and 802.x or the most current version compliant. Additionally, the Ethernet interfaces on all video end-point and network hardware must support 10/100/1000 mb transport, including copper and/or fiber physical interfaces. All hardware must provide static and DHCP IP address assignment, support tagging of traffic for queuing, support the implementation of various industry- standard QoS schemes (e.g. CoS, DSCP, IP Precedence, Diffserv, etc.), and provide remote management via one of the standard access methods (e.g. Telnet, HTTP, HTTPS, FTP).
- 4.3 The State currently utilizes Cisco TMS to manage & monitor video infrastructure and end-point devices and is in the process of migrating to Cisco Call Manager for call management.
- 4.4 Currently the State has in place a private IP video network connected through the AT&T NETTN. Most video systems within the State network connect at speeds of 384 and 768 Kbps. Within the this Contract Term, the State expects this to increase to as much as 2 Mbps.
- 4.5 The videoconferencing system and components provided are required to be compatible with both the existing ITU-T H.323 standard and SIP (RFC3261), and upgradeable to full compatibility with future versions of both of these standards. The Contractor shall assure this compatibility requirement, and provide documentation or other information related to migration, to include technical improvements, schedules, and associated cost implications related to full standards compliance.
- 4.6 The Contractor must maintain the compatibility and adherence to functional requirements and specifications of all hardware, regardless of changes by the manufacturer in product specifications or operational characteristics. All hardware, as delivered, must meet current manufacturer's specifications.
- 4.7 The Contractor must maintain the compatibility and adherence to functional requirements and specifications of all system software as offered by the manufacturer as the most current version. In addition, during the Term of the Contract all system software offered must migrate over time to later, more current manufacturer versions and upgrades. The Contractor must ensure that system software upgrades for systems and services will adhere to this requirement.
- 4.8 All proposed videoconferencing systems shall support current initiatives being proposed under the H.323 umbrella and SIP standards, and shall have migration to full compliance with final H.323 and SIP standards recommendations, as proposed by the ITU-T standards committee and IETF RFC3261 working group.
- 4.9 Contractor shall bid systems such that all on-site equipment can be controlled using a single, easy to operate, remote control unit or touch panel.
- 4.10 System setup shall be by a user driven interface. The menu system shall be such as to allow the user to start-up, configure for operation, establish conferences, and terminate conferences
- 4.11 The State is in the process of migrating from legacy stand-alone type video bridges to Cisco Meeting Server ("CMS"). All video endpoints supplied by the Contractor must be fully compliant and interoperable with Cisco CMS. All video endpoints supplied by Contractor must support H.323 video standards as well as SIP until notified by the State of a standard update/change.

## **5.0 Contractor Requirements**

- 5.1 The Contractor's personnel providing technical support services must support any and all hardware and software purchased by the State for videoconferencing, audiovisual and streaming video systems. At time of bid the Contractor must provide a copy of personnel that holds certified training for any manufacturer represented in Attachment A. Upon request, the Contractor must provide the State of Tennessee evidence of certified training for any manufacturer represented in Attachment A, as updated throughout the life of the contract. All maintenance technicians must have all technical manuals and tools required for repairs and maintenance of any system identified to be included under this contract. Under no circumstances should a manufacturer's warranty be voided due to a lack of certifications on the part of the Contractor.
- 5.2 The State requires Contractors bidding on this contract to provide written verification, in the form of a business letter, from each manufacturer listed below stating that the Contractor is authorized to resell, certified to install, support, repair and maintain the manufacturer's products. The letter from each manufacturer should be submitted with the bid and be dated within (3) months of the bid opening date, and must be specific to this request.
- Biamp
  - Cisco
  - Crestron
  - Sonic Foundry / Mediasite
- 5.3 The Contractor shall provide the State with priority level support for all videoconferencing, audiovisual, streaming video and related equipment to include hardware, software, upgrades, updates, software subscriptions (if applicable), installations, telephone technical support, on-site maintenance support, and other services as needed.
- 5.4 The Contractor must have support staff in place as of the bid opening date, capable of providing sales, engineering, project management, installation, programming and service anywhere within the entire State of Tennessee. The staff should include the following personnel:
- Account/Sales Manager
  - Design Engineer
  - Project Manager
  - Installation Technicians
  - Crestron Programmer
  - Service Manager / Help Desk Manager
  - Service Technicians
- 5.5 The State shall receive updated information within fourteen (14) business days following a change in the above requested personnel information throughout the entire Contract Term.
- 5.6 The Contractor must maintain service agreements with equipment manufacturers to ensure engineering level support of products, and timely shipment of replacement parts for the duration of the contract.
- 5.7 All Contractors must meet a list of criteria outlined in Section 3 and Section 5 of these specifications. The Contract will be awarded to the responsible and responsive Contractor with the lowest price. The lowest price is based on a percent discount off manufacturer list prices tabulated against sample catalog items on a combined price basis.
- 5.8 The following outlines the Contractor requirements for new projects.
- 5.8.1 Assign a Project Manager to oversee all of the State projects as soon as the Contract is awarded. The State prefers to work with a single project manager to keep continuity across all installations.

- 5.8.2 For each new project, the Contractor Sales Manager and/or Design Engineer shall schedule site visit or meeting with UCC Project Consultant.
- 5.8.3 The Contractor should assign a single Design Engineer to keep continuity across all State designs.
- 5.8.4 On all standard customer requests, the Contractor Design Engineer shall complete engineering details including Bill of Materials, Block Drawings and Statement of Work within ten (10) business days of site visit or meeting with UCC Project Consultant. The timeline for design deliverables for large construction projects will be the exception and must be discussed agreed upon with the STS-UCC Team.
- 5.8.5 All quotes are to be delivered to the State using the State provided quote form. See attachment C.
- 5.8.6 The Contractor shall order and receive materials on site, within thirty (30) days of receiving a Purchase Order from UCC.
- 5.8.7 The Contractor installation crew and/or programmers shall begin installation within five (5) days of the State receiving materials on site.
- 5.8.8 Installation, programming, documentation and end user training should be complete within fifteen (15) days of the start of onsite installation. Installation shall be complete and “turnkey” (installed in a condition ready for immediate use) in accordance with the manufacturers specifications.
- 5.8.9 All jobs, unless otherwise stated, should begin with the staging of equipment at a Contractor location before being shipped to a State site. Shipments to State sites should be in total. No partial shipments will be accepted, except for replacement or add-in parts.
- 5.9 The Contractor will be required to deliver “as-built” documentation, device configurations, control system source code, operator manuals and technical documentation.
- 5.10 Any change orders to the system design must be approved through the STS-UCC Team.
- 5.11 The Contractor must be responsible for the coordination of events surrounding the installation with a predetermined point of contact at the job site.
- 5.12 The Contractor shall perform complete system tests under the supervision (monitoring) of the State. System tests shall be in accordance with the Contractor's technical and installation procedures. In addition, live videoconferencing sessions must be initiated to test all parameters such as network speed, operation of peripheral equipment, and adherence to industry standards. STS-UCC Team is the sole representative and authority for coordinating acceptance activities and determining full system acceptance. Contractor shall provide a sign-off sheet, known in the industry as a PIC (project installation complete), stating that the job is complete including user training, ready for cutover. Cutover shall mean the complete placement of all components into full service and the system is ready to support the applications for which it was intended. Cutover shall not take place until the end user has received and completed the required user training.
- 5.13 Integration shall include the installation and functional testing of an individual site's hardware and applicable software, connectivity and total system testing to ensure full operation and compliance to

system purpose. All conference scenarios, to include establishing and testing both in bound and out bound point-to-point videoconference calls and/or audio conference calls, video streaming and interactivity where applicable will be a part of the integration tests.

- 5.14 The State requires the Contractor to provide comprehensive end-user training on all installed videoconferencing systems, audiovisual systems and applications provided by this Contract. Training must be provided on-site at the place of installation for all audiovisual jobs.
- 5.15 Additional training beyond the initial user training may be required at future dates. Additional training hours shall be purchased at the installation rate in the Contractor catalog pricing. The State will not authorize payment of travel or travel time associated with training (initial or additional). Training may be at any State location within the geographical boundaries of the State of Tennessee.
- 5.16 The Contractor's technicians and/or the Contractor's subcontractor technicians shall be certified for the Term of the Contract to perform any and all installations and repairs on the Videoconferencing and Audiovisual equipment and systems listed within the catalog and these specifications.
- 5.17 The Contractor is required to hold the following certifications:
- Biamp Tesira Server I/O Certified
  - Biamp TesiraForte Certified
  - Biamp Vocia Certified
  - Cisco Gold Certified Partner
  - Cisco TelePresence Video Master – Authorized Technology Partner (ATP)
  - Crestron Digital Media Certified Designer (DMC-D-4K)
  - Crestron Certified Programmer
- 5.18 The Contractor shall provide, with their bid, copies of the manufacturer certificates listed in Section 5.2 for the staff identified in section 5.4. At least one (1) service technician must be identified for each of the seven certifications listed in section 5.17. The State expects that each service technician assigned to this Contract will have the appropriate certification. During the Term of the Contract, if a service technician changes, the State may require the Contractor to submit certificate(s) for the new service technician.
- 5.19 The Contractor shall work with manufacturers to provide on loan demo and/or evaluation equipment at the State's data center facility, to simulate a lab where any or all equipment covered by this Contract may be demonstrated and tested and/or new products may be tested. Typical evaluation timeframe is thirty (30) days upon receipt of equipment by the State. Such "on loan or demo" equipment is considered to be owned by the Contractor and may be added, moved, surplus, sold or changed or returned at the discretion of the Contractor. Timely delivery and return of demo/evaluation equipment is the responsibility of the Contractor.

## **6.0 Technical Requirements**

The following paragraphs are the minimum requirements for the listed Audiovisual and Videoconferencing equipment and systems.

### **6.1 Cisco Collaboration Desktop and Room Systems**

- 6.1.1 The State currently uses Cisco DX80, SX80, Room Kit, Room Kit Plus, Room Kit Pro, Room 55, etc.

- 6.1.2 Systems within this category may be configured as single monitor systems, rack-mounted systems, or integrated with audiovisual peripherals. Contractor must include systems which are all capable of supporting high definition (“HD”) and standard definition (“SD”) resolutions.
- 6.1.3 The codecs in this category must comply with the following minimum requirements:
- 6.1.4 Must be ITU-T H.323 compliant. Inside the H.323 umbrella standard, must also support the following:
- Must be H.460 compliant.
  - Must be compliant with H.261, H.263, H.263+, H.264 and H.265 video standards.
  - Must be ITU-T G.711, G.722, G.722.1 and G.728 compliant.
  - Must be H.239 capable. Systems must be capable of H.239 data exchange without the purchase of additional or supplemental software licensing.
  - Must include H.281 far-end camera control.
  - Must be H.243 multipoint compatible.
  - Must use H.225 & H.245 communications protocol.
  - Must be SIP (RFC 3261) compliant.
  - Must be able to receive and display graphics with a minimum, native resolution of XGA (1024 x 768).
  - Must provide minimum data rates of 384 Kbps up to a maximum of 4Mbps over LAN.
  - Desktop and Set-top endpoints must have video inputs for main camera and PC input (HDMI or DVI).
  - All systems must support an HD video resolution of 1080p at a minimum of 30fps.
  - Must support a minimum video framing rate of 30 frames-per-seconds using standard-definition resolution at 384 kbps call speed.
  - Must support browser-based management.
  - Must support the following network services and communications capabilities: TCP/IP, HTTP/S, DNS, SNMP, DHCP, FTP, SSH and Telnet.

Additionally, all room system (integrated) video endpoints must comply with the following:

- Must have two video (display) outputs, with the ability for the main output to be HDMI
- Must have two camera inputs and the ability to control two pan-tilt-zoom cameras.
- Must have a third video input for computer connectivity on either HDMI or DVI.
- Must have multiple microphone inputs and at least one line-level input.
- Must include (optional) support for internal multipoint support for up to 3 external video endpoints plus itself (e.g. “3+1”).
- Must have adequate API command set to be controlled by a third party remote control system.

## 6.2 Cisco Collaboration Endpoint Software

- 6.2.1 The State currently uses Cisco Remote Monitoring and MultiSite software

## 6.3 Cisco Collaboration Peripherals

- 6.3.1 The State currently uses Cisco P60 cameras, Table Microphone 20 and the Touch 10 control interface as well as Cisco wall mounts and cabling.

## 6.4 All Biamp hardware, software and accessories except Devio products

- 6.4.1 The State currently uses BiampTesira audio DSP systems. The Contractor must provide matrix mixers for integrated Audiovisual and large Videoconferencing system designs. Standard specifications and features shall, at minimum, include:
- Acoustic echo cancellation on every microphone input.

- Must include automatic gain control; auto/manual gate; noise cancellation; high pass, low pass, notch and peq filters.
- Matrix mixing parameters must be capable of accommodating a 12 x 8 matrix, 1 VoIP or Telco in/out and at least one networked digital audio protocol such as Dante/Cobranet/AVB.
- Must have a minimum of four mic inputs plus four line inputs and four outputs.
- Must be fully RS232 controllable.
- Must include an option to connect to a POTS line or VoIP solutions

#### 6.4.2 Beamtracking Microphones:

The State currently uses the Biamp TCM-1

Standard specifications and features shall, at minimum, include:

- Digital audio connectivity using Dante or AVB
- Shall utilize a multi-element design for beam-forming/lobe steering
- Indicator lights should be controllable for mute state feedback
- Shall be capable of being powered via POE.

### 6.5 Biamp Devio Series hardware, software and accessories

#### 6.5.1 The State is currently using the Devio SCR-25

Standard specifications and features shall, at minimum, include:

- The system shall provide the user with a USB 3.0 connection to act as a soft conferencing peripheral.
- System must be capable of supporting DisplayLink Video
- System must be capable of supporting Bluetooth connectivity
- System must be capable of supporting HDMI audio and video pass through of at least 1080P
- System must provide acoustic echo cancellation with reference taken from both USB and HDMI
- Microphone should be capable of Beamtracking
- Must provide support for at least 2 microphones
- Microphones should be available in a table-top or ceiling mount form factor.

### 6.6 Shure hardware, software and accessories

#### 6.6.1 The State currently uses the Shure MXA910A ceiling microphones.

Standard specifications and features shall, at minimum, include:

- Digital audio connectivity using Dante or AVB
- Shall utilize a multi-element design for beam-forming/lobe steering
- Indicator lights should be controllable for mute state feedback
- Shall be capable of being powered via POE.

The State currently uses Shure QLX-D, ULX-D and MXW wireless systems.

#### 6.6.2 Wireless Lavalier Microphone Systems

Standard specifications and features shall, at minimum, include:

- This wireless system must be frequency agile and include a diversity receiver, a bodypack transmitter and a lavalier microphone.
- Must support encrypted digital audio
- System should use TA4M connectors for external microphones
- Must include microprocessor controlled diversity
- Rechargeable battery pack should provide at least eight hours of continuous use.

#### 6.6.3 Wireless Handheld Microphone System:

Standard specifications and features shall, at minimum, include:

- This wireless system must be frequency agile and include a diversity receiver, a transmitter and a microphone cartridge.
- Must support encrypted digital audio
- Must include microprocessor controlled diversity
- Rechargeable battery pack should provide at least eight hours of continuous use.

#### 6.6.4 The State currently uses the DDS 5900 Digital Discussion System.

Standard specifications and features shall, at minimum, include:

- Central unit must support a scalable amount of discussion units of at least 125
- Base unit speakers must mute when the microphone is active
- Microphones must support voice activation.
- The maximum number of open microphones should be controllable.
- Base units must be powered remotely.
- Central unit must provide professional audio connectivity for microphone output and speaker input.

### 6.7 Harman Companies (Crown, JBL Professional, etc...) accessories

#### 6.7.1 Ceiling Mounted Speakers

State currently uses JBL Control 26-CT

Standard specifications and features shall, at minimum, include:

- Frequency response range of 75 Hz to 20,000 Hz.
- Must support 140 watts continuous program power capacity.
- Sensitivity of 89db (1w/1m).
- 110 degree conical coverage
- 70v taps at 60w, 30w, 15w, and 7.5w.
- Must include back can, grille, support plate and tile rails.

#### 6.7.2 Audio Amplification Systems

The State currently uses JBL CSA280Z.

Standard specifications and features shall, at minimum, include:

- Must have two (2) inputs and dual 80 watt outputs.
- Must provide both 4-ohm and constant voltage outputs.
- The front panel must include power switch, master volume controls for each output channel, and LEDS to indicate power, output signal presence for each channel and clip indicators.
- A frequency response of 20 Hz to 20 kHz +/- 0.5db.

### 6.8 QSC hardware, software, cabling and accessories

#### 6.8.1 The State currently uses the QSC Core 510i

Standard specifications and features shall, at minimum, include:

- Acoustic echo cancellation on every mic input.
- Must include automatic gain control; auto/manual gate; noise cancellation; high pass, low pass, notch and peq filters.
- Matrix mixing parameters must be capable of accommodating a 12 x 8 matrix, 1 VoIP or Telco in/out and at least one networked digital audio protocol such as Dante/Cobranet/AVB.
- Must have a minimum of four (4) mic inputs plus four line inputs and four (4) outputs.
- Must be fully RS232 controllable.
- Must include an option to connect to a POTS line or VoIP solutions
- Ethernet enabled control system
- Must include RS232 ports, IR\Serial ports, relay control, and support a full range of touch panels, keypads, additional control devices, and peripherals.



## 6.9 Audio Equipment not from Biamp, Shure, Extron or Harman Companies

Must meet the specifications for the following listed above:

- Audio DSP Systems
- Beamforming microphones
- Ceiling Microphones
- Wireless Lavalier Microphone Systems
- Wireless Handheld Microphone Systems
- Digital Discussion System
- Ceiling Mounted Speakers
- Audio Amplification Systems

## 6.10 Crestron hardware, software, cabling and accessories

### 6.10.1 External System Controllers

The State currently uses Crestron Series 3 integrated AV control systems. The State uses many processors from this line ranging from the RMC3 to the PRO3.

Standard specifications and features at a minimum include:

- Ethernet enabled control system
- The ability to run up to ten (10) separate control programs
- Must include RS232 ports, IR\Serial ports, relay control, and support a full range of touch panels, keypads, additional control devices, and peripherals.
- Contractors are encouraged to include additional system controllers, control modules, wired and wireless touch panels, keypads, and control accessories in their catalog.

### 6.10.2 Touch Panel Interface Control Systems

Products must meet or exceed the below listed specifications:

### 6.10.3 Hardwired Standard Touch Panel Control System:

- Touch-sensitive active matrix color LCD display
- Must provide two (2) way communications between touch panel and controller.
- Must provide minimum of 7" diagonal active matrix touch-screen display.
- Must operate via Power over Ethernet

### 6.10.4 Hardwired High-End Touch Panel Control System

In addition to the features supported on the above "standard" category the high-range must support:

- Touch-sensitive active matrix color LCD display
- Must provide minimum of 15" diagonal active matrix color screen.
- Must provide at least one real-time video preview

### 6.10.5 Digital Matrix Switching:

This category needs to include multiple configurations of DVI, HDMI, Fiber and HDBaseT switchers and matrix routers.

The State currently uses the Crestron DM Series Matrix Switcher.

- Must have a fully modular and expandable matrix switcher featuring redundant power supplies
- Must offer low-latency digital video and audio switching, and HD lossless multi-room signal distribution, for all types of AV sources
- Must offer a full range of selectable input and output types

## 6.11 Vaddio hardware, software, cabling and accessories

#### 6.11.1 Pan/Tilt/Zoom (PTZ) Camera

Standard specifications and features shall, at minimum, include:

- Auxiliary PTZ camera must have a 1/3" CMOS image device.
- Auto/manual focus, automatic gain control, automatic white balance, local and far-end control,
- Pan +/- 100 degrees, Tilt +/- 20 degrees tilt, 10x zoom ratio with a minimum of six presets.
- Must support 720p and 1080P high-definition resolutions with a video signal-to-noise ratio of 50db or greater.
- Minimum operating capability of 15.0 lx.
- Must have a HDMI or Digital HD output.

#### 6.11.2 USB Conferencing Interfaces

Standard specifications and features shall, at minimum, include:

- The system shall provide the user with a USB connection to act as a soft conferencing peripheral.
- Device must act as a USB interface for HD video and professional audio.
- Provide professional level audio input and output.
- Provide a high definition video input for external video connectivity.

#### 6.12 Kramer Via / Interactive, hardware, software, cabling and accessories

##### 6.12.1 The State currently uses the Kramer VIA Campus PLUS and Connect PLUS Interactive solutions.

Standard specifications and features shall, at minimum, include:

- LAN Connectivity supporting static IP assignment.
- HDMI input for audio and video pass through.
- must support wireless presentation
- provide digital white board and annotation capabilities
- must be able to be managed through Kramer VSM (Via Site Management)

#### 6.13 Video and Control Equipment not from Extron, Crestron, Vaddio, or Kramer

Must meet the specifications for the following listed above:

- External System Controllers
- Hardwired Standard Touch Panel Control System
- Hardwired High-End Touch Panel Control System
- Digital Matrix Switching
- Pan/Tilt/Zoom (PTZ) Camera
- Interactive solutions

#### 6.14 Panasonic Projectors

##### 6.14.1 The State currently uses the PT-RZ570 Lampless projector.

Standard specifications and features shall, at minimum, include

- 3500 lumens and:
- Contrast ratio no less than 600:1
- Minimum of one digital video input
- Must be fully controllable via RS-232 and/or IP.
- All projectors must include a hand-held remote control
- Native Resolution of at least 1920x1080p

#### 6.15 NEC Projectors

Standard specifications and features shall, at minimum, include

- 3500 lumens and:
- Contrast ratio no less than 600:1
- Minimum of one digital video input

- Must be fully controllable via RS-232 and/or IP.
- All projectors must include a hand-held remote control
- Native Resolution of at least 1920x1080p

#### 6.16 Replacement Projector Lamps (All makes)

6.16.1 Lamps in this category should be a direct OEM replacement for all projectors found in the States deployment base as seen in Attachment A.

#### 6.17 Monitors

6.17.1 The State currently uses NEC, Planar and Panasonic LCD/LED Displays

LCD/LED displays must at a minimum meet or exceed the below listed specifications.

- Must have a native resolution of 1920x1080 or better
- Must have a display response time of 8ms or less.
- Must have HDMI inputs.
- Must be fully controllable via RS-232 and/or IP
- Must be rated for a minimum of 16x7 operation

6.17.2 The State requires the bidding Contractors provide pricing for the following sizes of LCD monitors in this category (as applicable per manufacturer):  
42", 46", 50", 55", 60", 65", 70", 75", 80", 84", 90", and 98"

#### 6.18 DaLite Electric projector screens

6.18.1 Electric Projection Screens

Standard specifications and features shall, at a minimum, include:

- All screens are to be wide format, 16:9, tensioned HD surface with a gain of 0.9 or 1.1. No square or AV format screens will be accepted.
- Minimum screen size should be 92" diagonal
- Screens must be electrically operated via 120 volt
- Must have motor mounted inside
- Must have pre-set but adjustable limit switches to automatically stop picture surface in the "up" and "down" positions
- Screen fabric to be flame-retardant and mildew resistant
- Picture surface with black masking borders standard
- Screen must provide low voltage control via RS-232 or dry-contact closure

The Contractor must be able to provide at a minimum, but not limited to the following screen sizes 92", 106", 110", 119", 133" and 159" diagonal HDTV format in their catalog.

#### 6.19 Middle Atlantic racks, hardware and accessories

6.19.1 All equipment racks must be equipped with ultra-quiet fans

6.19.2 The Contractor must provide racks and rack accessories designed to house videoconferencing and audiovisual equipment from all manufacturers represented in the Contractor's bid and included in the catalog.

#### 6.20 Audio Video Furniture International furniture, carts, and accessories

6.20.1 The State currently uses podiums from Audio Video Furniture International.

- All Furniture and enclosures must be properly ventilated for AV equipment
- The Contractor must provide the latest technology with respect to audiovisual multi-media lectern, podium and presentation furniture, carts and associated products
- These products must support the internal integration of audiovisual components needed as per the room design.

## 6.21 Mounting Hardware

6.21.1 The Contractor must provide mounting hardware, designed to mount videoconferencing and audiovisual equipment from all manufacturers represented in the Contractor's bid as an additional item in the catalog. The cost should be per mounting hardware package basis. A mounting hardware package would include brackets, screws, braces, bolts, pins, nails, beam clamps, unistrut, wire, zip ties, and other items.

## 6.22 Special Application Packages

6.22.1 This category includes application specific packages, special use-case solutions and vertical market bundles not applicable to the other categories. Items in this category may include hardware software and accessories bundled in a single package. Examples of application specific packages are: Manufacturer Price-bundled packages; Healthcare solution integrated videoconferencing package; Courtroom integrated packages; School classrooms, higher education and corporate training integrated packages; or custom use-case bundles of equipment to facilitate specific customer requests.

## 6.23 Streaming Video hardware, software and accessories

6.23.1 The State currently uses MediaSite Encoders and Management Portal.

- All streaming encoders and capture equipment must be compatible with MediaSite encoders and portal.
- All encoders must allow the live capture feed to be stored locally on the encoder/recorder while simultaneously sending out the live capture feed to the server.

## 6.24 Labor

6.24.1 Site surveys are not part of this section and are provided by the Contractor at no additional cost to the State.

### 6.24.2 Installation Labor

6.24.2.1 This labor should include the labor to install the Contractor-provided videoconferencing or audiovisual equipment. Installation cost must be included as a per hour rate and must not be included in the cost of the equipment.

- The Contractor shall install hardware, software and/or other related components at locations throughout the State.
- Installation and testing shall be complete and turnkey (supplied, installed in a condition ready for immediate use) in accordance with the manufacturer's specifications.
- The number of hours associated with a system installation will be estimated by the Contractor and approved by the STS-UCC Team based on prior knowledge of man-hour units for similar installations.
- Actual man-hours required for installations will be verified by STS-UCC Team prior to payment for hours billed.
- Project management should be included at no additional charge to the State for all standard projects.

### 6.24.3 Programming Labor

6.24.3.1 The Contractor shall provide the software and any licensing fees for all system controllers purchased by the State at no additional cost to the State and the cost of the controller should include these fees.

6.24.3.2 Programming labor costs must be included as a per hour rate and must not be included in the cost of the equipment.

- The Contractor shall program the controller, and/or other related components at locations throughout the state. Testing of the programmed devices shall be complete and turnkey (supplied, installed in a condition ready for immediate use) in accordance with the manufacturers specifications.

- The number of hours associated with external system and touch panel controller programming will be estimated by the Contractor and approved by the STS-UCC Team based on prior knowledge of man-hours for similar external system and touch panel controller programming.
- Actual man-hours required for programming will be verified by STS-UCC Team prior to payment for hours billed.

#### 6.24.4 Project Management

- 6.24.4.1 Project Management labor is required as needed to manage and coordinate the ordering, shipping, scheduling, installation, testing, training and documentation of each installation and is to be included at no charge to the State. It is not to be priced separately for standard installations.
- 6.24.4.2 Contractor shall provide consistency in delivering project management through an exclusive single point of contact beginning the day the contract is signed. Should this contact's employment be terminated for any reason, a new exclusive single point of contact must be assigned within 14 days.
- 6.24.4.3 The State will contract with the Contractor for project management services for projects that exceed \$300,000 in value and may, at the State's discretion, purchase project management on other jobs as required.
- 6.24.4.4 When Project Management is quoted, the number of project management hours associated with a system installation will be estimated by the Contractor and approved by the UCC Team based on prior knowledge of man-hour units for similar installations.
- 6.24.4.5 When Project Management is quoted, actual man-hours required for project management will be verified by STS-UCC Team prior to payment for hours billed.

### 7.0 Maintenance Requirements

- 7.1 The Contractor shall provide the State with priority level support for telephone technical support, next day (during Normal Business Hours) on-site parts and technician labor, maintenance, and related services for the existing and future non-warranty State-owned videoconferencing, audiovisual, streaming video and related equipment.
- 7.2 All equipment covered by maintenance shall include advanced replacement of any defective hardware or software.
- 7.3 The Contractor is responsible for procuring and keeping current manufacturer advanced replacement level support from Cisco for all Cisco videoconferencing equipment and from Poly for all Polycom videoconferencing equipment supported on this maintenance contract.
- 7.4 Quantities of maintained equipment may increase or decrease during the term of the contract. New equipment entering into post-warranty will be added to the maintenance contract and equipment that has reached end of service will be removed from the maintenance contract. The Contractor, in conjunction with STS - UCC, will maintain and update the equipment list. A true-up will be conducted 4 times per year to add and/or delete equipment from the contract.
- 7.5 The Contractor shall supply all products and services, technical support, unlimited telephone support (8x5xNBD), remote access, operational assistance, on-site maintenance (8x5xNBD), and repair, and materials as outlined within this document for the duration of the contract.
- 7.6 The Contractor must maintain the compatibility and adherence to functional requirements and specifications of all hardware and software as offered by the manufacturer at the State's most current version.

- 7.7 Unlimited telephone technical support directly from the Contractor is required when solving problems or failures of a technical nature involving the operation of equipment, hardware, and/or software.
- 7.8 Maintenance replacement hardware must be equal to, or better, or of the same make and model as, the hardware it replaces, and in all cases, compatible with the existing system hardware and software. Software replacement must be of the same release, being replaced, unless specified differently by STS-UCC Team.
- 7.9 For equipment under maintenance that is serviced or replaced, the Contractor shall provide only new and the latest replacement hardware, software, and other related parts and components provided by the manufacturer in the marketplace, unless otherwise stated within these specifications. If new replacement parts are not available, with STS-UCC approval factory refurbished parts may be allowed to complete a maintenance repair. In all cases, replacement hardware must be compatible with the existing system software and hardware. All subsystem components, wire, cable, and accessory hardware shall be standard products of an established and reputable manufacturer. The Contractor will be required to have next business day availability to all manufacturer products currently deployed in the State's network, unless otherwise noted.
- 7.10 Replacement projectors must be equal to or better than the manufacturer's recommendation for replacements. If this is not possible, STS - UCC must approve, in writing, the replacement unit.
- 7.11 Replacement monitors must be equal to or better than the manufacturer's recommendation for replacements. If this is not possible, STS - UCC must approve, in writing, the replacement monitor. Monitors under maintenance that need to be replaced will have a three (3) business day delivery turn around. This is an exception to the next business day on-site parts rule above.
- 7.12 On-site support labor and service shall be included in the monthly maintenance charge. Service will be performed during business hours.
- 7.13 STS - UCC requires a technician be dispatched and on-site during Normal Business Hours at State agency locations statewide on the same day as the replacement part arrives at the site. (The technician and part should both arrive on-site the same day.) The Contractor's technician will coordinate with the site point of contact for room availability and building access prior to arriving at the State Agency site. The responding technician will be required to dispose of used/ replaced parts or components. STS - UCC staff will be notified upon completion of any maintenance where equipment is replaced. The State local point of contact is responsible for maintaining inventory information and records, ensuring proper asset management.
- 7.14 The Contractor shall provide a maintenance package to include Level Three technical support to cover all existing and future State owned videoconferencing, audiovisual, streaming video and related equipment owned by the State of Tennessee. STS - UCC staff shall coordinate required service calls with the Contractor.
- 7.14.1 Level One and Level Two Support, which include problem determination and technical support, will be provided by State personnel within STS.
- 7.14.2 Level One Support is performed by the STS Customer Care Center ("CCC"). It includes generating a trouble ticket and collecting the following information:
- problem description
  - system or component identification (serial numbers)
  - on-site Agency point of contact

- Site Address and room information

7.14.3 STS – CCC staff will route the trouble ticket to technical support staff within STS – UCC.

7.14.4 STS - UCC staff will provide Level Two Support. This support entails working with the agency point of contact to find a solution to the reported problem and includes:

- remote access to the equipment if possible to check network status and system functionality
- basic troubleshooting to duplicate the problem
- problem identification and solution proposal

7.14.5 STS - UCC staff will contact the Contractor for Level Three Support services after Level One and Level Two Support has failed, when required. The Contractor will be responsible for completing the service within the time schedule as defined in Section 7.20 by the State.

7.15 The Contractor must provide unlimited Level Three telephone technical support for videoconferencing, audiovisual, streaming video and related equipment. This includes troubleshooting hardware/software problems with STS - UCC staff. The Contractor will provide these support services only through STS - UCC staff. Level Three also includes the Contractor making arrangements to be on site next day with parts and labor to troubleshoot and/or to replace a faulty device, when required.

7.16 The Contractor is responsible for collecting the following minimum information upon receiving an outage report from the State:

- problem description
- type of outage (critical or non-critical)
- system or component identification (serial numbers)
- on-site point of contact information

7.17 STS - UCC shall be the sole determiner of whether an outage is critical or non-critical. The Contractor must provide a local Nashville, TN telephone number or toll free telephone number for reporting service issues.

7.18 When a new installation is complete and the Project Installation Complete [PIC] form has been signed by STS-UCC, the Contractor will be expected to guarantee the workmanship of their installation to the end of the calendar month. This workmanship guarantee will cover the equipment, physical installation of the equipment, all mounting, terminations and on-site support/service. The workmanship guarantee period will be from the sign-off date on the PIC form to the end of the calendar month. Maintenance on the electronic components will begin on the 1st day of the next calendar month. Example: If an install is complete on January 15th, then the State will start paying for maintenance on all of the electronic equipment on February 1st.

7.19 The technical support team must include the point of contact for each level of Contractor management including escalation procedure staff that is designated to provide services required for the contract. After the award, the Contractor must provide the name, title, e-mail addresses, telephone numbers and fax numbers for the technical support team to include Contractor Telephone Technical Support Representative, Contractor Technical Support Specialist, and Contractor Support Manager. The State shall receive updated information within ten (10) business days following a change in the above requested information throughout the entire contract period.

## 7.20 Escalation Procedures

- 7.20.1 The Contractor must provide acknowledgement of problems or failures within two (2) hours of notification by UCC staff. The Contractor must create a unique incident ticket at this time for internal tracking.
- 7.20.2 The Contractor's helpdesk representative shall begin arranging for on-site service no later than four (4) hours of notification, if the problem or failure has not been resolved remotely. The time period starts when work on the failed equipment, hardware, and/or software begins.
- 7.20.3 Once arriving on site for repair, Contractor's service technician must be prepared to engage manufacturer's telephone technical support if required. While on site, Contractor management will communicate via email with the STS-UCC Tteam on the problem disposition every two (2) hours until the problem or failure is resolved.
- 7.20.4 After the award, the Contractor must identify the point of contact/representative for local and regional Contractor management and provide the name, title, e-mail addresses, telephone numbers and fax numbers for the Local Manager and Regional Manager. CPO and STS shall receive updated information within ten (10) business days following a change in the above requested information throughout the entire contract period.

#### 7.21 Technical Specialist Support

- 7.21.1 Upon request the Contractor may be required to provide their technical specialist staff to work on-site with STS-UCC TEAM staff to provide assistance in the following areas:
- Troubleshooting, Isolating and diagnosing system, hardware and software malfunctions.
  - Installing, physical connectivity check and running diagnostics tools or performing diagnostic test.
  - Remote access to the equipment if possible to check network status and system functionality.
  - Interoperability issues of the State's multi-layered network

- 7.21.2 The State shall not pay for or otherwise be responsible for expenses for travel, meals or lodging related to any services provided under this Contract.

- 7.22 The State shall require specific time frames as specified throughout Sections 3 and 7 for the delivery of services covered under maintenance or service calls. Hardware and software replacements shall be delivered to the destination of the Agency's location as directed by STS-UCC TEAM on the next business day, during Normal Business Hours, following notification of an outage or determination of a replacement need.

### **8.0 Bid Evaluation Model (included as an attachment) to Event #32110-11233**

- 8.1 The evaluation model is a representative sample of products required. The Contractor shall enter information as described below for all items listed on the evaluation model.
- 8.2 All areas of the evaluation model that require completion must be completed without leaving blanks, including the use of "n/a" or n/c". The use of these symbols cannot be evaluated.



- 8.3 The column marked “Discount Percent” is to represent the response to the corresponding Bid Factor for all items for which a discount percentage from MSRP applies in the Sourcing Event. Only fill in the highlighted Green Cells on the Evaluation model
- 8.4 The column marked “Discount Price” is a calculated field representing the MSRP price minus the discount proposed except for Labor pricing. For Labor pricing, please only fill in the Hourly Rate that corresponds to the Bid Factors Contractor is proposing. These fields are highlighted in Green on the Evaluation model.
- 8.5 The Maintenance Fee Percentage is a single Bid Factor, which will be applied to the manufacturer’s list prices for the equipment and associated quantities in Attachment A (Maintenance equipment list), as it is updated throughout the term of the contract, to determine the annual maintenance fees for Priority Level Support for telephone technical support and on-site maintenance for the existing and future non-warranty State-owned videoconferencing, audiovisual, streaming video and related equipment. The Bid Factor bid percentage must be entered as a positive decimal number with a maximum of three (3) decimal places. Do not use a minus sign (-) or plus sign (+).
- 8.5.1 Examples
- For an annual maintenance fee of 10% enter .10
  - For an annual maintenance fee of 8.5% enter .085
  - For an annual maintenance fee of 13.25% enter .1325
- 8.6 The Contractor shall include all costs associated with providing Priority Level Support for telephone technical support and on-site maintenance for the existing and future non-warranty State owned videoconferencing equipment and related technologies and services in the Bid Factor (Maintenance Fee Percentage) bid percentage. The State will pay no additional costs for this maintenance.
- 8.7 The State shall multiply the Estimated Equipment Value listed in Attachment A by the Bid Factor (Maintenance Fee Percentage) bid percentage to calculate the Annual Maintenance Fee Evaluation Amount. The State shall multiply the estimated number of labor hours by the hourly labor rate (Line Item 1) to calculate the Annual Hourly Labor Cost Evaluation Amount. The State shall add the Annual Maintenance Fee Evaluation Amount and the Annual Hourly Labor Cost Evaluation Amount to calculate the Annual Evaluation Amount. The State will multiply the Annual Evaluation Amount by three (3) to calculate the Overall Evaluation Amount.
- 8.8 The evaluation model is used as a method by the State to calculate and determine the lowest responsive and responsible Contractor. The State of Tennessee will verify all entries on the evaluation model spreadsheet for correctness. In the event of a discrepancy between the prices and/or percentages on the Contractor’s Evaluation Model and the prices and/or percentages bid on the Bid Factors/Line Items by the Contractor, the prices and/or percentages on the Contractor’s Bid Factors/Line Items shall prevail. The State will verify all entries on the Contractor’s Evaluation Model and correct inconsistencies between the Contractor’s Evaluation Model and the Contractor’s Bid Factors/Line Items.
- 8.9 The quantities (products or services) shown on the Evaluation Model are the State's estimate and does not guarantee purchases of those quantities. These quantities are listed as an estimate for evaluation purposes only.

**Attachments:**

A = Existing State equipment to be covered under maintenance

B= Sample Catalog layout

C= Sample Quote form

D= STS AV System Installation and Programming Standards

E=Evaluation Model